

in which:

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom; a (C_1-C_4) alkyl radical; an aryl radical; a hydroxy (C_1-C_4) alkyl radical; a polyhydroxy (C_2-C_4) alkyl radical; a (C_1-C_4) alkoxy (C_1-C_4) alkyl radical; an amino (C_1-C_4) alkyl radical wherein said amine is optionally protected by an acetyl, an amido, or a sulphonyl group; a (C_1-C_4) alkylamino (C_1-C_4) alkyl radical; a di $((C_1-C_4)$ alkyl)amino (C_1-C_4) alkyl radical wherein said dialkyls optionally form a 5- or 6-membered aliphatic or heterocyclic ring; a hydroxy (C_1-C_4) alkylamino (C_1-C_4) alkyl radical; and a di(hydroxy (C_1-C_4) alkyl)amino (C_1-C_4) alkyl radical;
- the X radicals, which are identical or different, are chosen from a hydrogen atom; a (C_1-C_4) alkyl radical; an aryl radical; a hydroxy (C_1-C_4) alkyl radical; a polyhydroxy (C_2-C_4) alkyl radical; an amino (C_1-C_4) alkyl radical; a (C_1-C_4) alkylamino (C_1-C_4) alkyl radical; a di $((C_1-C_4)$ alkyl)amino (C_1-C_4) alkyl radical

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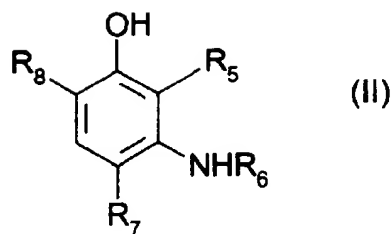
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wherein said dialkyls optionally form a 5- or 6-membered aliphatic or heterocyclic ring; a hydroxy(C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di(hydroxy(C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical; an amino radical; a (C₁-C₄)alkylamino radical; a di((C₁-C₄)alkyl)amino radical; a halogen atom; a carboxylic acid group; and a sulphonic acid group;

- i is 0, 1, 2 and 3;
- p is 0 or 1;
- q is 0 or 1;
- n is 0 or 1;

with the proviso that:

- (i) the sum $p + q$ is other than 0;
- (ii) when $p + q$ is equal to 2, then n is 0 and the NR₁R₂ and NR₃R₄ groups occupy the (2,3), (5,6), (6,7), (3,5) or (3,7) positions;
- (iii) when $p + q$ is equal to 1, then n is 1 and either the NR₁R₂ or the NR₃R₄ group and the OH group occupy the (2,3), (5,6), (6,7), (3,5) or (3,7) positions;
- at least one second oxidation base chosen from N,N-bis(β-hydroxyethyl)- para-phenylenediamine and its acid addition salts; and
- at least one coupler chosen from meta-phenylenediamines and meta-aminophenols of formula (II) and acid addition salts thereof:



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in which:

- R_5 and R_8 , which are identical or different, are chosen from a hydrogen atom, a halogen atom, or a (C_1-C_4) alkyl, monohydroxy (C_1-C_4) alkyl, polyhydroxy (C_2-C_4) alkyl, (C_1-C_4) alkoxy, monohydroxy (C_1-C_4) alkoxy or polyhydroxy (C_2-C_4) alkoxy radical;
- R_6 is chosen from a hydrogen atom and a (C_1-C_4) alkyl, monohydroxy (C_1-C_4) alkyl, polyhydroxy (C_2-C_4) alkyl or an amino (C_1-C_4) alkyl radical;
- R_7 is chosen from a hydrogen atom, a (C_1-C_4) alkyl or (C_1-C_4) alkoxy radical and a halogen atom chosen from chlorine, bromine or fluorine;

it being understood that, when R_5 represents a chlorine atom and when R_6 and R_7 simultaneously represent a hydrogen atom, then R_8 is other than a methyl radical.

17. The composition according to claim 16, wherein the keratinous fibers are human keratinous fibers.

18. The composition according to claim 17, wherein the human keratinous fibres are hair.

19. The composition according to claim 16, further comprising a medium appropriate for dyeing.

20. The composition according to claim 16, wherein when R_5 or R_8 is a halogen atom, said halogen atom is chosen from chlorine, bromine, iodine and fluorine.

21. The composition according to claim 16, wherein the pyrazolo(1,5-a)pyrimidines of formula (I) are chosen from:

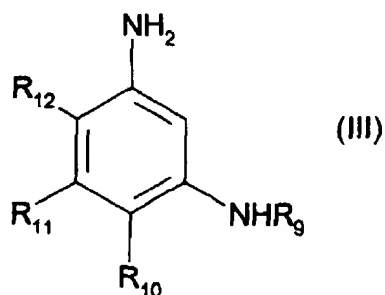
- pyrazolo(1,5-a)pyrimidine-3,7-diamine;
- 2-methylpyrazolo(1,5-a)pyrimidine-3,7-diamine;
- 2,5-dimethylpyrazolo(1,5-a)pyrimidine-3,7-diamine;
- pyrazolo(1,5-a)pyrimidine-3,5-diamine;
- 2,7-dimethylpyrazolo(1,5-a)pyrimidine-3,5-diamine;
- 3-aminopyrazolo(1,5-a)pyrimidin-7-ol;
- 3-amino-5-methylpyrazolo(1,5-a)pyrimidin-7-ol;
- 3-aminopyrazolo(1,5-a)pyrimidin-5-ol;
- 2-(3-aminopyrazolo(1,5-a)pyrimidin-7-ylamino)ethanol;
- 3-amino-7-(β -hydroxyethylamino)-5-methylpyrazolo(1,5-a)pyrimidine;
- 2-(7-aminopyrazolo(1,5-a)pyrimidin-3-ylamino)ethanol;

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- 2-((3-aminopyrazolo(1,5-a)pyrimidin-7-yl)(2-hydroxyethyl)amino)ethanol;
- 2-((7-aminopyrazolo(1,5-a)pyrimidin-3-yl)(2-hydroxyethyl)amino)ethanol;
- 5,6-dimethylpyrazolo(1,5-a)pyrimidine-3,7-diamine;
- 2,6-dimethylpyrazolo(1,5-a)pyrimidine-3,7-diamine;
- 2,5,N-7,N-7-tetramethylpyrazolo(1,5-a)pyrimidine-3,7-diamine;

and acid or base addition salts thereof.

22. The composition according to claim 16, wherein the meta-phenylenediamines are chosen from the compounds of formula (III) and acid addition salts thereof:



in which:

- R₉ is chosen from a hydrogen atom, a (C₁-C₄)alkyl radical, a monohydroxy(C₁-C₄)alkyl radical and a polyhydroxy(C₂-C₄)alkyl radical;

- R₁₀ and R₁₁, which are identical or different, are chosen from a hydrogen atom, a (C₁-C₄)alkyl radical, a monohydroxy(C₁-C₄)alkoxy radical, and a polyhydroxy(C₂-C₄)alkoxy radical;
- R₁₂ is chosen from a hydrogen atom, a (C₁-C₄)alkoxy radical, an amino(C₁-C₄)alkoxy radical, a monohydroxy(C₁-C₄)alkoxy radical, a polyhydroxy(C₂-C₄)alkoxy radical, and a 2,4-diaminophenoxyalkoxy radical.

A² 23. The composition according to claim 22, wherein the meta-phenylenediamines are chosen from meta-phenylenediamine, 3,5-diamino-1-ethyl-2-methoxybenzene, 3,5-diamino-2-methoxy-1-methylbenzene, 2,4-diamino-1-ethoxybenzene, 1,3-bis(2,4-diaminophenoxy)propane, bis(2,4-diaminophenoxy)methane, 1-(β-aminoethyloxy)-2,4-diaminobenzene, 2-amino-1-(β-hydroxyethyloxy)-4-(methylamino)benzene, 2,4-diamino-1-ethoxy-5-methylbenzene, 2,4-diamino-5-(β-hydroxyethyloxy)-1-methylbenzene, 2,4-diamino-1-(β,γ-dihydroxypropyloxy)benzene, 2,4-diamino-1-(β-hydroxyethyloxy)benzene, 2-amino-4-N-(β-hydroxyethyl)amino-1-methoxybenzene and acid addition salts thereof.

24. The composition according to claim 16, wherein the meta-aminophenols are chosen from meta-aminophenol, 5-amino-2-methoxyphenol, 5-amino-2-(β-hydroxyethyloxy)phenol, 5-amino-2-methylphenol, 5-N-(β-hydroxyethyl)amino-2-methylphenol, 5-N-(β-hydroxyethyl)amino-4-methoxy-2-methylphenol, 5-amino-4-methoxy-2-methylphenol, 5-amino-4-chloro-2-methylphenol, 5-amino-

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2,4-dimethoxyphenol, 5-(γ-hydroxypropylamino)-2-methylphenol, 3-amino-6-chlorophenol, 3-amino-6-bromophenol, 3-(β-aminoethyl)amino-6-chlorophenol, 3-(β-hydroxyethyl)amino-6-chlorophenol and acid addition salts thereof.

25. The composition according to claim 16, wherein said at least one first oxidation base is present in the composition in an amount ranging from 0.0005 to 12% by weight relative to the total weight of the composition.

26. The composition according to claim 25, wherein said at least one first oxidation base is present in an amount ranging from 0.005 to 6% by weight relative to the total weight of the composition.

27. The composition according to claim 16, wherein said at least one second oxidation base is present in the composition in an amount ranging from 0.0005 to 12% by weight relative to the total weight of the composition.

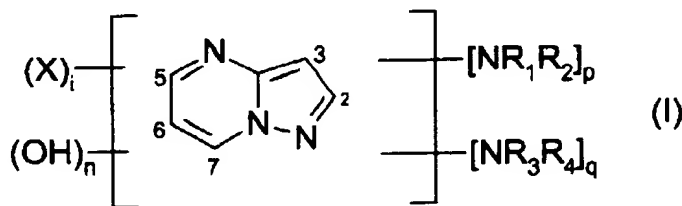
28. The composition according to claim 27, wherein said at least one second oxidation base is present in the composition in an amount ranging from 0.005 to 6% by weight relative to the total weight of the composition.

29. The composition according to claim 16, wherein said at least one coupler is present in the composition in an amount ranging from 0.0001 to 10% by weight relative to the total weight of the composition.

30. The composition according to claim 29, wherein said at least one coupler is present in the composition in an amount ranging from 0.005 to 5% by weight relative to the total weight of the composition.

31. The composition according to claim 16, wherein the acid addition salts are chosen from hydrochlorides, hydrobromides and sulphates and tartrates, lactates and acetates and wherein the base addition salts are chosen from those obtained with sodium hydroxide, potassium hydroxide, aqueous ammonia and amines.

32. A process for dyeing keratinous fibers comprising:
applying to said keratinous fibers at least one dyeing composition comprising:
at least one first oxidation base chosen from pyrazolo(1,5-a)pyrimidines of formula (I) and acid or base addition salts thereof:



in which:

- R₁, R₂, R₃ and R₄, which are identical or different, are chosen from a hydrogen atom; a (C₁-C₄)alkyl radical; an aryl radical; a hydroxy(C₁-C₄)alkyl radical; a polyhydroxy(C₂-C₄)alkyl radical; a (C₁-C₄)alkoxy(C₁-C₄)alkyl radical; an amino(C₁-C₄)alkyl radical wherein said amine is optionally protected by an acetyl, an amido, or a sulphonyl group; a (C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di((C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical wherein said dialkyls optionally form a 5- or 6-membered aliphatic or heterocyclic ring; a hydroxy(C₁-C₄)alkylamino(C₁-C₄)alkyl radical; and a di(hydroxy(C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical;

- the X radicals, which are identical or different, are chosen from a hydrogen atom; a (C₁-C₄)alkyl radical; an aryl radical; a hydroxy(C₁-C₄)alkyl radical; a polyhydroxy(C₂-C₄)alkyl radical; an amino(C₁-C₄)alkyl radical; a (C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di((C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical wherein said dialkyls optionally form a 5- or 6-membered aliphatic or heterocyclic ring; a hydroxy(C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di(hydroxy(C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical; an amino radical; a (C₁-C₄)alkylamino radical; a di((C₁-C₄)alkyl)amino radical; a halogen atom; a carboxylic acid group; and a sulphonic acid group;

- i is 0, 1, 2 and 3;

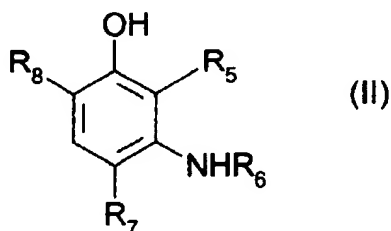
- p is 0 or 1;

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- q is 0 or 1;
- n is 0 or 1;

with the proviso that:

- (iv) the sum $p + q$ is other than 0;
- (v) when $p + q$ is equal to 2, then n is 0 and the NR_1R_2 and NR_3R_4 groups occupy the (2,3), (5,6), (6,7), (3,5) or (3,7) positions;
- (vi) when $p + q$ is equal to 1, then n is 1 and either the NR_1R_2 or the NR_3R_4 group and the OH group occupy the (2,3), (5,6), (6,7), (3,5) or (3,7) positions;
- at least one second oxidation base chosen from N,N-bis(β -hydroxyethyl)- para-phenylenediamine and its acid addition salts; and
- at least one coupler chosen from meta-phenylenediamines and meta-aminophenols of formula (II) and acid addition salts thereof:



in which:

- R_5 and R_8 , which are identical or different, are chosen from a hydrogen atom, a halogen atom, or a (C_1-C_4) alkyl, monohydroxy (C_1-C_4) alkyl, polyhydroxy (C_2-C_4) alkyl, (C_1-C_4) alkoxy, monohydroxy (C_1-C_4) alkoxy or polyhydroxy (C_2-C_4) alkoxy radical;
- R_6 is chosen from a hydrogen atom and a (C_1-C_4) alkyl, monohydroxy (C_1-C_4) alkyl, polyhydroxy (C_2-C_4) alkyl or an amino (C_1-C_4) alkyl radical;
- R_7 is chosen from a hydrogen atom, a (C_1-C_4) alkyl or (C_1-C_4) alkoxy radical and a halogen atom chosen from chlorine, bromine or fluorine;

it being understood that, when R_5 represents a chlorine atom and when R_6 and R_7 simultaneously represent a hydrogen atom, then R_8 is other than a methyl radical, and

wherein color is developed at acidic, neutral or alkaline pH in the presence of at least one oxidizing agent which is added to the at least one dyeing composition only at the time of application or which is present in an oxidizing composition applied simultaneously or sequentially in a separate manner.

33. The process according to claim 32, wherein the keratinous fibers are human keratinous fibers.

34. The process according to claim 33, wherein the human keratinous fibers are hair.

35. The process according to claim 32, comprising a medium appropriate for

dyeing.

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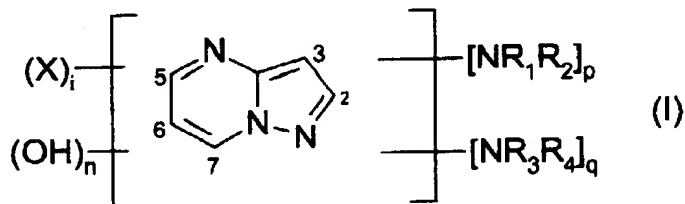
36. The process according to claim 34, wherein when R_5 or R_8 is a halogen atom, said halogen atom is chosen from chlorine, bromine, iodine and fluorine.

37. The process according to claim 32, wherein said at least one oxidizing agent is chosen from hydrogen peroxide, urea hydrogen peroxide, alkali metal bromates, persalts, peracids and enzymes.

38. A multi-compartment kit device comprising a first compartment and a second compartment, wherein

said first compartment contains a dye composition comprising:

- at least one first oxidation base chosen from pyrazolo(1,5-a)pyrimidines of formula (I) and acid or base addition salts thereof:



in which:

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom; a (C_1-C_4) alkyl radical; an aryl radical; a hydroxy (C_1-C_4) alkyl radical; a

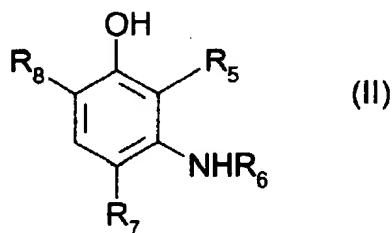
polyhydroxy(C₂-C₄)alkyl radical; a (C₁-C₄)alkoxy(C₁-C₄)alkyl radical; an amino(C₁-C₄)alkyl radical wherein said amine is optionally protected by an acetyl, an amido, or a sulphonyl group; a (C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di((C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical wherein said dialkyls optionally form a 5- or 6-membered aliphatic or heterocyclic ring; a hydroxy(C₁-C₄)alkylamino(C₁-C₄)alkyl radical; and a di(hydroxy(C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical;

- the X radicals, which are identical or different, are chosen from a hydrogen atom; a (C₁-C₄)alkyl radical; an aryl radical; a hydroxy(C₁-C₄)alkyl radical; a polyhydroxy(C₂-C₄)alkyl radical; an amino(C₁-C₄)alkyl radical; a (C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di((C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical wherein said dialkyls optionally form a 5- or 6-membered aliphatic or heterocyclic ring; a hydroxy(C₁-C₄)alkylamino(C₁-C₄)alkyl radical; a di(hydroxy(C₁-C₄)alkyl)amino(C₁-C₄)alkyl radical; an amino radical; a (C₁-C₄)alkylamino radical; a di((C₁-C₄)alkyl)amino radical; a halogen atom; a carboxylic acid group; and a sulphonic acid group;

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- i is 0, 1, 2 and 3;
 - p is 0 or 1;
 - q is 0 or 1;
 - n is 0 or 1;

with the proviso that:

- (vii) the sum $p + q$ is other than 0;
- (viii) when $p + q$ is equal to 2, then n is 0 and the NR_1R_2 and NR_3R_4 groups occupy the (2,3), (5,6), (6,7), (3,5) or (3,7) positions;
- ~~A~~ - (ix) when $p + q$ is equal to 1, then n is 1 and either the NR_1R_2 or the NR_3R_4 group and the OH group occupy the (2,3), (5,6), (6,7), (3,5) or (3,7) positions;
- at least one second oxidation base chosen from N,N-bis(β -hydroxyethyl)- para-phenylenediamine and its acid addition salts; and
- at least one coupler chosen from meta-phenylenediamines and meta-aminophenols of formula (II) and acid addition salts thereof:



in which:

- R₅ and R₈, which are identical or different, are chosen from a hydrogen atom, a halogen atom, or a (C₁-C₄)alkyl, monohydroxy(C₁-C₄)alkyl, polyhydroxy(C₂-C₄)alkyl, (C₁-C₄)alkoxy, monohydroxy(C₁-C₄)alkoxy or polyhydroxy(C₂-C₄)alkoxy radical;
- R₆ is chosen from a hydrogen atom and a (C₁-C₄)alkyl, monohydroxy(C₁-C₄)alkyl, polyhydroxy(C₂-C₄)alkyl or an amino(C₁-C₄)alkyl radical;
- R₇ is chosen from a hydrogen atom, a (C₁-C₄)alkyl or (C₁-C₄)alkoxy radical and a halogen atom chosen from chlorine, bromine or fluorine;

it being understood that, when R₅ represents a chlorine atom and when R₆ and R₇ simultaneously represent a hydrogen atom, then R₈ is other than a methyl radical, and

said second compartment contains an oxidizing composition.

39. The kit according to claim 38, wherein the at least one dyeing composition further comprises a medium appropriate for dyeing.

40. The kit according to claim 38, wherein when R₅ or R₈ is a halogen atom, said halogen atom is chosen from chlorine, bromine, iodine or fluorine.--